

REMARKS

The Office Action mailed on June 30, 2005 has been received and the Examiner's comments have been carefully reviewed. Applicants submit that in view of the following remarks, the pending claims are in condition for allowance.

I. Background

As discussed in the specification of the application, the present invention relates to a headset system that can be effectively used by employees in a quick service restaurant to communicate with each other and with customers in drive-through lanes. In a quick service restaurant, the cable jacks on prior art headsets and prior art base stations, which are typically configured to connect to a programming cable, may become contaminated with food substances, such as grease, and fail. Also, rough use by employees may cause the pins in the cable jacks to be damaged. The present invention avoids the cable jacks by incorporating infrared technology in the frequency programming of the headsets.

If one of ordinary skill in the art would have recognized the contamination and pin damage problems and attempted to solve them, one approach would have been to improve the housing of the headsets/base stations to include a cover or some other mechanism that would plug or otherwise close the jack opening to prevent contamination when it was not connected to the cable. Instead of improving the configuration of the jack openings, Applicants redesigned the way the base station and headsets of the prior art quick service headset systems communicated. This redesign constituted a substantial leap forward in the art.

II. Rejections

In the outstanding Office Action, claims 23-25, 27-30, 32, 35, and 37-40 were rejected as being obvious over "3M Headset System Model C960 Operating Instructions" ("3M Manual") in view of Ruppert et al. (U. S. Pat. No. 6,236,969) (Ruppert). Applicants respectfully submit that Ruppert combined with the 3M Manual do not teach the claimed features. Further, Applicants submit that there was no motivation in the prior art to combine the teachings of Ruppert with the 3M Manual.

Ruppert Combined with 3M does not Teach the Claimed Features

Claims 23, 32, and 35 are independent. Claim 23 relates to a system including programmable headsets and a programming unit. The headsets in each independent claim include a transmitter, a receiver, a headset signal processing device and an infrared light detector. The programming unit includes an infrared light emitter, a signal processing device, and a cradle for receiving a portion of the headset. The programming unit signal processing device is configured to output a signal containing the operation frequency for the transmitter and the receiver for transmission by the programming unit infrared light emitter to the headset infrared light detector. As a result, an infrared signal between the programming unit and the headset can set the operating frequency of the transmitter and receiver.

The system of the 3M Manual uses a physical cable connection instead for programming the operating frequency.

The "Response to Arguments" section of the Office Action asserts that it is obvious to make the invention because Ruppert teaches replacing a cable with an I/R connection. (Office Action, page 19, lines 12-15.) Other parts of the body of the Office Action assert that Ruppert teaches various uses for an I/R port. As submitted in the previous amendment filed March 2,

2005, Applicants respectfully disagree that the various uses for the I/R port described in Ruppert include using the I/R port to program the voice frequency. In addressing this argument, the "Response to Arguments" section of the office action argues that the system of the 3M Manual teaches the frequency programming by cable, while Ruppert teaches replacing a cable with an I/R transmission. Applicants respectfully disagree that Ruppert teaches replacing a cable with an I/R transmission, and request that the location in Ruppert with this teaching be pointed out specifically. In the passages of Ruppert cited by the Office Action, Ruppert describes various uses for the I/R port 89 of Ruppert, but does not state that the I/R port replaces a cable connection. For example, Ruppert describes that the I/R port can be used for headset-to-headset communication (Ruppert, Col. 7, lines 8-21.) Ruppert discusses that a spoken voice command can be converted to an electronic signal, which is then passed to either the RF or I/R control circuitry for execution. (Ruppert, Col. 10, lines 16-34) Ruppert also describes how I/R transmissions can be used in the system of Ruppert, for communication that is not frequency dependent. (Ruppert, Col. 10, lines 49-63.) Applicants have not identified a passage stating that a cable connection be replaced by an I/R transmission, and request that this teaching in Ruppert be pointed out.

Because this teaching is not found in Ruppert, the claim features are not taught by the combination of the 3M prior art system and Ruppert.

There is No Motivation for Combining 3M and Ruppert

According to the Office Action, the motivation to modify 3M to incorporate the infrared features of Ruppert "would have been that the combination would have enabled additional,

frequency independent wireless communication to be conducted through the headset along with the radio communication of the system." The Office Action goes on to state:

. . . such a port would have been particularly useful for two way data transfer between the radio-communications enabled headset and base station of 3M and devices such as a computer, printer, ATM, or other peripheral device. Ruppert also notes an I/R transmission scheme that would have enabled secure transmissions to be made. Ruppert also teaches that a single base station may issue broadcast communications over the I/R band, which suggests that implementing such I/R interface on the base unit and headsets of 3M would have enabled multiple headsets to access transmitted data.

See Office Action at page 7.

The asserted motivation may provide reasons for adding general I/R communication capabilities to a headset, but do not provide a suggestion or motivation to program the headset operational frequency using I/R transmission. Impermissible hindsight is being used to make the combination related to programming of the operating frequency. See In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991) (holding that the teaching or suggestion to make the unclaimed combination and reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure).

In fact, certain well-known characteristics of infrared technology would likely have deterred ones of ordinary skill in the art from trying to incorporate the technology in the systems. For example, it was understood that infrared technology was light sensitive and heat sensitive. Therefore, since the kitchens of quick service restaurants are typically brightly lit and can be extremely hot, one of ordinary skill in the art probably would not have thought to apply infrared technology to solve the headset system contamination issues. For the reasons stated above, the asserted motivation to combine the references is without merit. Applicants request that the rejection be withdrawn.

Claim 26 was rejected as being obvious over 3M in view of Ruppert and further in view of Takahashi et al. (U.S. Pat. No. 6,525,854) ("Takahashi"). Claim 31 was rejected as being

obvious over 3M in view of Ruppert and Takahashi and further in view of well-known prior art. Claims 33-34 and 36 were rejected as being obvious over 3M in view of Ruppert and further in view of Lee et al. (U.S. Pat. No. 5,247,380) ("Lee"). Since all of the above listed remaining rejections depend on the combination of 3M and Ruppert, Applicants request that these rejections be withdrawn for the same reasons stated above.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

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Katherine M. DeVries Smith
Reg. No. 42,157
KDS/JEL:sl

23552

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